

Harold S. Johnson.

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THE NEW ENGLAND BOTANICAL CLUB

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NOTES ON KATAHDIN PLANTS

S. JUDSON EWER

DURING the latter part of July and the fore part of August of the summer of 1929 it was my privilege to spend approximately three weeks at Mt. Katahdin, Maine. Collections were made of the various plants met with, both in the better known regions of the Mountain and also in such little traversed portions as the Northwest Basin and the cirque containing Klondike Pond. The following is a list of those plants collected concerning which I find no reference in published lists and notes dealing with the flora of the upper slopes of Katahdin. Thanks are due to Professor M. L. Fernald of the Gray Herbarium for his kindness in checking identifications. Specimens are deposited in the herbarium of the New England Botanical Club and in the writer's private collection.

WOODSIA ILVENSIS (L.) R. Br. One small clump in a crevice of the cliffs of the north wall of the North Basin at an altitude of about 3600 feet. The fronds were in fruiting condition at the time of collection, July 26.

DICKSONIA PUNCTILOBULA Michx. Abundant along the trail just below Basin Pond Camp, 2400 feet.

EQUISETUM SYLVATICUM L. Sterile stalks abundant in the grass at the head of Klondike Pond, 3440 feet.

PINUS STROBUS L. One small specimen, 10 inches high, on the floor of the North Basin at approximately 3300 feet. This little tree was growing in the shelter of a rock in company with such plants as *Vaccinium Vitis-Idaea*, var. *minus*, *Kalmia angustifolia*, *Vaccinium uliginosum* and scrub birch. It appeared in flourishing condition and had much new growth.

SPARGANIUM ANGUSTIFOLIUM Michx. Occurring very sparingly in the shallow water near the outlet of Lake Cowles, Northwest Basin, 2860 feet. Also found in the shallow water along the north shore of Lower Basin Pond, 2460 feet.

CALAMAGROSTIS CANADENSIS (Michx.) Beauv., var. *ACUMINATA* Vasey. According to my collections this is the variety of *C. canadensis* occurring commonly on the Mountain along the ponds, slides and walls. It is very abundant in the open at the head of Klondike Pond. *C. canadensis* appears in lists of Katahdin plants,^{1,2} and possibly a reexamination of this older material might reveal the specimens to be var. *acuminata*.

GLYCERIA STRIATA (Lam.) Hitchc., var. *STRICTA* (Scribn.) Fernald. This is the northern variety of *Glyceria striata* (*G. nervata* (Willd.) Trin.) and was found on the north wall of the North Basin at an elevation of approximately 3700 feet. *G. nervata* is mentioned in Fernald's list² as occurring at Chimney Pond.

CAREX INTUMESCENTS Rudge, var. *FERNALDII* Bailey. Found along the trail from Chimney to Basin Ponds at about 2500 feet. *C. intumescens* is listed by Harvey³ from the North and Northwest Basins, and from Dry Pond.

CAREX PAUPERCULA Michx., var. *IRRIGUA* (Wahlenb.) Fernald. Occurring in the sphagnum along the southern shore of Lower Basin Pond, 2460 feet. Also in a small, boggy area at the head of Klondike Pond, 3440 feet.

CAREX LEPTONERVIA Fernald. In the open, grassy area at the head of Klondike Pond, 3440 feet. Also along the southern shore of Lower Basin Pond, 2460 feet.

SCIRPUS ATROVIRENS Muhl., var. *GEORGIANUS* (Harper) Fernald. In the opening about Chimney Pond Camp, 2914 feet.

JUNCUS TENUIS Willd., var. *WILLIAMSHI* Fernald. In the opening about Chimney Pond Camp, 2914 feet.

JUNCUS EFFUSUS L., var. *PYLAEI* (Laharpe) Fern. & Wieg. In the opening about Chimney Pond Camp, 2914 feet.

SALIX ARCTOPHILA Cockerell. In moist sphagnous banks of the wall above Klondike Pond at approximately 3700 feet. This is a characteristic shrub of Greenland, Labrador and western Newfoundland, and Professor Fernald informs me that it has not been previously collected south of the Shickshock Mts. of Gaspé. It is therefore new to New England.

CERASTIUM VULGATUM L. Introduced near Chimney Pond Camp, 2914 feet.

NYMPHAEA RUBRODISCA (Morong) Greene. Found sparingly along the eastern shore of Lake Cowles, Northwest Basin, and also in the shallow water near the outlet, 2860 feet. Although at a comparative high altitude Lake Cowles has surprisingly warm water and supports the most extensive aquatic vegetation of any of the ponds of Mt. Katahdin. Davis Pond, also in the Northwest Basin, and at the

¹ Lamson-Scribner, F. Mt. Katahdin and Its Flora. *Bot. Gaz.* 17: 46-54. 1892.

² Fernald, M. L. Vascular Plants of Mt. Katahdin. *RHODORA* 3: 166-177. 1901.

³ Harvey, L. H. An Ecological Excursion to Mt. Ktaadn. *RHODORA* 5: 41-52. 1903.

same elevation as Lake Cowles, is icy cold and seems practically devoid of aquatic plant life.

POTENTILLA MONSPELIENSIS L. Found along the shore of Lower Basin Pond, 2460 feet.

EPILOBIUM ADENOCAULON Haussk. One specimen was found in the region intermediate between Lower and Upper Basin Ponds, 2460 feet.

OENOTHERA PUMILA L. Found along the shore of Lower Basin Pond, 2460 feet.

CIRCEA ALPINA L. Growing rather abundantly in the shade of balsam at the edge of the grassy area at the head of Klondike Pond, 3440 feet. In bud upon July 22.

ANDROMEDA GLAUCOPHYLLA Link. Abundant in sphagnum on the wall above Klondike Pond, 3600 feet to 3900 feet. There are rather extensive boggy areas upon this gently sloping wall, characterized by such bog plants as *Vaccinium Oxycoleus*, *Drosera rotundifolia*, *Kalmia polifolia*, etc.

ASTER PUNICEUS L., var. *OLIGOCEPHALUS* Fernald. Found commonly in the grassy area at the head of Klondike Pond, 3440 feet. According to Professor Fernald, this plant is common in southern Labrador, Newfoundland, and the Gaspé Mts., and it also occurs in the White Mts. of New Hampshire. It has not been previously reported from Katahdin.

ASTER PUNICEUS L., var. *PERLONGUS* Fernald. Found along the trail between Chimney and Basin Ponds, not far from the latter. This, Professor Fernald informs me, is the first collection other than the original from Table Top Mt., Gaspé. It is therefore new to New England.

LEYDEN, MASSACHUSETTS.

AIRA SPICATA, LINN, AND THE APPLICATION OF THE INTERNATIONAL RULES

OLIVER ATKINS FARWELL

IN *RHODORA* for October, 1929, Mr. K. K. Mackenzie, using the Vienna Code, Article 51 (2) and Article 56, argues that *Aira spicata* L., Sp. Pl. p. 64, is invalidated by *Aira spicata* L., l. c., p. 63, hence *Trisetum spicatum* (L.) Richter, based on the former, is also invalid.

Mr. A. S. Hitchcock, commenting in *RHODORA* for December, 1929, on the above paper by Mackenzie, argues under Article 50 of the International Rules, that the second *Aira spicata* L. was validated when Linn corrected, in an erratum, the first *Aira spicata* and changed it to *Aira Indica*, claiming that this makes the first *A. spicata* universally regarded as nonvalid.

The first *A. spicata* has been universally regarded as a synonym of *A. Indica*, and rightly so, but it cannot be regarded, under the International Rules, as universally nonvalid—quite the contrary. Being a synonym is not necessarily being nonvalid, and there is no article in the International Rules that would make one of these names nonvalid; the application of these rules is intended to apply to species *when found in their proper genera*. It was perfectly right for Linnaeus to correct one of these names, as long as both remained in the genus *Aira*. He went further and discarded both for new names. But when modern botanists remove them to their proper genera, they must revert to the use of the original specific names and the secondary or substitute names become synonyms.

In my estimation none of the rules for the rejection of a name under Section 7 can be applied in the present case, as under the International Rules there is no name to be rejected, each name being valid for its respective species (Article 48); also, Article 27 specifically says that the same specific name may be given in several genera. As *Aira spicata* on page 63 is not even congeneric with *A. spicata* on page 64, the specific name "spicata" *must be retained* (Article 48) for each species when removed to its proper genus, unless there is already in the genus to which it is removed a valid species under the same name (Article 53). If *Aira spicata* No. 1, and *Aira spicata* No. 2, were conspecific or congeneric, one of the names would have to go (Article 27) but since neither is the case, neither has to go, and *Trisetum spicatum* (L.) Richter, is correct. Also, the correction of the first *A. spicata* to *A. Indica*, *at a later date*, only makes the latter a mere synonym (Article 50, 51) (1), and therefore a name not to be admitted.

In so far as I am aware, there is no valid species of the specific name *spicatum* under *Panicum*, so that *Aira spicata* Linn, Sp. Pl., p. 63 (*A. Indica* Linn) when removed to its proper genus should become (Article 48) *Panicum spicatum* (Linn) Farwell, n. comb.

A very similar case is that of *Hedysarum rotundifolium* Vahl (1791) and *H. rotundifolium* Mx. (1803). Here we have two distinct species published under the same generic name by two different authors at different dates but under the same specific name. As neither of these species belongs in *Hedysarum*, are not conspecific nor even congeneric, they must be removed each to its proper genus, and (Article 48) each must retain its first specific name (*rotundifolium*), unless it falls foul of one or another of the impediments enumerated

in the International Rules. Michaux's species becomes *Desmodium rotundifolium* (Mx.) DC. Vahl's species is not so fortunate, for when transferred to *Indigofera*, it meets one of the impediments of the Rules. There is a valid species of the same name, *Indigofera rotundifolia* Lour. (1790), and hence (Article 53) *Hedysarum rotundifolium* Vahl must change its specific name when referred to its proper genus (*Indigofera*), probably to *I. prostrata* Roxb. (*I. echinata* Willd.). Both the species of Vahl and of Michaux, having been removed from *Hedysarum*, the way is left open for the use of the specific name *rotundifolium* for some genuine species of the genus. So we have the legitimate *Hedysarum rotundifolium* Boiss. et Noé (Article 50).

DEPARTMENT OF BOTANY, PARKE, DAVIS & CO.,
DETROIT, MICHIGAN.

THE FLORA OF THE ELIZABETH ISLANDS,
MASSACHUSETTS

JOHN M. FOGG, JR.

(Continued from page 258)

ANACARDIACEAE

RHUS TYPHINA L. Occasional in sheltered hollows on hillsides. NAS: *Northrop* (o), 3479 (N); PEN: 1441 (P,W), 3409 (N,P).

R. GLABRA (L.) Gray. No material seen; reported by Mrs. Northrop from Nashawena.

R. GLABRA (L.) Gray, var. *BOREALIS* Britton. See Britton's Man. Fl. No. St. Can. 601 (1901). Forming a small grove along the Northwest Gutter at the west end of Uncatena. UNC: 2453 (P,M).

R. COPALLINA L. Open slopes and moist depressions. UNC: 3039 (N); PAS: 3793 (N,P); NAS: *Northrop*, Aug. 13, 1901 (Y).

R. VERNIX L. Swampy woods and thickets. NAU: 2485 (N,P); PAS: 3794 (N); NAS: *Northrop* (o).

R. TOXICODENDRON L. Thickets, copses and overgrown hollows. Extremely variable as to habit, leaf-shape and fruit. NON: 3345 (N,P,M); UNC: 3040 (N,P); PAS: 1785 (N,P); NAS: *Northrop* (o), 2352 (N); CUT: 2314 (N); PEN: *Jordan* (o).

AQUIFOLIACEAE

ILEX OPACA Ait. Occasional in sandy wooded areas. NAU: 2488 (P,M,C); NAS: *Northrop* (o), 3535 (N).

I. OPACA Ait., forma *SUBINTEGRA* Weatherby. *RHODORA*, xxiii. 118 (1921). Sandy woods with the last; rare. NAU: 2484 (N,P,W,M,C).

I. VERTICILLATA (L.) Gray. Moist overgrown depressions and wet borders of ponds. NON: 3174 (N,P,M); NAS: 3490 (P).

I. VERTICILLATA (L.) Gray, var. FASTIGIATA (Bickn.) Fernald. RHODORA, xxiii. 274 (1921). In similar situations as last; occasional. NON: 2884 (N, P, M); NAS; *Northrop*, "July-Aug." 1901 (Y), 3494 (N).

I. LAEVIGATA (Pursh) Gray. Reported by Mrs. Northrop for Nashawena; no specimen seen.

I. GLABRA (L.) Gray. The Inkberry is evidently very rare on the Elizabeth Islands. Although sought for repeatedly, it is known only from a single specimen collected on Nashawena by Mrs. Northrop. NAS: *Northrop*, Aug. 1901 (Y).

ACERACEAE

Acer rubrum L. Sandy and boggy woods and thickets; var. *tridens* was nowhere seen. NON: 2655 (N,P); NAS: *Northrop* (o), 3534 (N).

A. platanoides L. Planted in small grove near hospital building on Penikese. PEN: 1443 (W).

A. Pseudo-Platanus L. A few trees with the preceding. PEN: 3410 (P,M).

SAPINDACEAE

Aesculus Hippocastanum L. Included in Mrs. Northrop's list with the comment, "Single good sized tree in midst of native trees about Choptauk Lake. Introduced." No specimen seen.

BALSAMINACEAE

Impatiens biflora Walt. Wet borders of ponds. NON: 2887 (N); NAU: 2735 (N,P); NAS: *Northrop* (o).

VITACEAE

Parthenocissus quinquefolia (L.) Planch. *Psedera quinquefolia* Greene. Occasional in thickets. NON: 2294 (N,P); NAS: *Northrop* (o); PEN: 856 (W).

P. tricuspidata (Sieb. & Zucc.) Planch. Trailing over stone wall near hospital building on Penikese. PEN: 3411 (N,P).

Vitis labrusca L. Thickets and moist hollows. UNC: 3028 (N); NAS: *Northrop*, July, 1901 (Y), 3493 (P).

V. aestivalis Michx. Trailing over low trees, edge of sandy woods. NAU: 2490 (P).

MALVACEAE

Malva rotundifolia L. Dry sandy soil, waste places. NAU: *Pennell* 3115 (W); NAS: *Northrop* (o); PEN: 1442 (P,W).

Althaea officinalis L. Mrs. Northrop, in listing this species for Nashawena, says, "2 or 3 plants on different parts of shore." No specimen seen.

HIBISCUS MOSCHEUTOS L. Borders of salt marshes. NON: 2673 (P); UNC: 2985 (N,P); NAU: 2378 (N).

HYPERICACEAE

Hypericum perforatum L. Abundant everywhere on dry hillsides. NON: 2679 (P); UNC: 2968 (N); NAS: *Northrop* (o), 3552 (P); CUT: 2332 (N); PEN: 1445 (N,P,W,M,C).

H. BOREALE (Britton) Bickn. Pond borders and wet hollows; abundant. NON: 2642 (P,W), 2701 (N,P); UNC: 2983 (N); NAU: 2726 (N,P); PAS: 3738 (P); NAS: 3523 (P).

H. MUTILUM L. Same habitats as last; less frequent. NON: 2569 (N); NAU: *Pennell* 3125 (W), 2389 (P); NAS: *Northrop* (o); PEN: *Jordan* (o).

H. CANADENSE L. Peaty pond margins and boggy hollows. NON: 2645 (N); UNC: 3023 (N,P), 3085 (N,P); NAS: *Northrop* (o); CUT: *Sanford*, Aug. 15, 1917 (N).

H. GENTIANOIDES (L.) BSP. Dry sandy hillsides and clearings. NON: 2694 (P); UNC: 3086 (N); NAS: *Northrop* (o).

H. VIRGINICUM L. Sandy and peaty pond borders, often partly immersed. NON: 2640 (P), 3171 (N,P,C); UNC: 3022 (N); NAU: 2927 (N,P); NAS: *Northrop* (o), 2351 (P,M); CUT: *Sanford*, Aug. 15, 1917 (N).

ELATINACEAE

ELATINE MINIMA (Nutt.) F. & M. See Fernald, RHODORA, xix. 10 (1917). Sandy bottoms and borders of ponds. NON: 2706 (N,P); NAU: *Pennell* 3202 (W), 2727 (P), 2943 (N); PAS: 1061 (P), 1064 (P); NAS: *Northrop* (o); CUT: 2533 (N).

CISTACEAE

HELIANTHEMUM CANADENSE (L.) Michx. Open grassland and dry sandy clearings; abundant. NON: 2625 (N,P), 2578 (P,M), 2903 (N); NAU: 2474 (P,M), 2598 (N,P); NAS: *Northrop* (o), 3558 (P).

H. PROPINQUUM Bickn. See Bull. Torrey Bot. Club, xl. 615 (1913). Seen only on sandy bank bordering West End Pond. NAU: 2915 (N,P).

H. BICKNELLII Fernald. *H. majus* of Manual. See RHODORA, xxi. 36 (1919). Dry, open, grassy slopes. NAU: 2493 (P), 2945 (N); PAS: *Svenson*, Sept. 8, 1926 (N); NAS: *Northrop*, Aug. 1901 (Y).

H. DUMOSUM (Bickn.) Fernald. See Bull. Torrey Bot. Club, xl. 613 (1913), and RHODORA, xix. 60 (1917). Grassland and sandy clearings. NAU: 2494 (P,W), 2944 (N); PAS: *Svenson*, Sept. 8, 1926 (N); NAS: *Northrop*, Aug. 1901 (Y), 3557 (P,M).

HUDSONIA TOMENTOSA Nutt. Open sandy areas. NAU: *Williams*, July 10, 1911 (N); PAS: 800 (N,P,M); NAS: *Northrop*, "July-Aug." 1901 (Y), *Williams*, July 10, 1911 (N), *Pennell* 2916 (W), 2365 (P,M).

LECHEA VILLOSA Ell. Apparently not common; sandy woods on Naushon. NAU: 2462 (P).

L. MARITIMA Leggett. Abundant on open downs and sandy stretches. NON: 2584 (N), 2624 (P); NAU: 2473 (P), 2481 (P), 2597 (N); PAS: 3770 (P).

L. LEGGETTII Britton & Hollick. Reported by Mrs. Northrop from Nashawena; no specimen seen.

VIOLACEAE

VIOLA PAPILIONACEA Pursh. Not common; seen only in sandy beech woods on Naushon. NAU: 3314 (P), 3326 (N,P).

V. FIMBRIATULA Sm. Abundant on open downs and dry, grassy slopes. NON: 2581 (N), 3289 (P); NAU: *Pennell* 3129 (W), 3126 (P); CUT: *Sanford*, Aug. 15, 1917 (N), 2457 (P,M); PEN: 1444 (N,P,W).

[*V. SAGITTATA* Ait. Reported by Jordan for Penikese and by Mrs. Northrop for Nashawena but probably refers to the preceding.]

V. LANCEOLATA L. Open bogs and peaty borders of ponds. NON: 2568 (P,M), 2894 (N), 3307 (P); UNC: 3088 (N); NAU: *Pennell* 3122 (W), 2511 (N); NAS: *Northrop* (o); CUT: *Sanford*, Aug. 15, 1917 (N).

V. PALLENS (Banks) Brainerd. Peaty and boggy hollow at west end of Nashawena. NAS: 3499 (N,P).

[*V. BLANDA* Willd. Appears on Mrs. Northrop's Nashawena list. In absence of specimens it seems most likely that this refers to the preceding.]

LYTHRACEAE

DECODON VERTICILLATUS (L.) Ell. Abundant in swamps, borders of ponds and low wet thickets. NON: 2563 (N,P), 3170 (N,P); NAU: 2387 (N); PAS: 3795 (P); NAS: *Northrop* (o), 2338 (N,P,M,C); CUT: *Sanford*, Aug. 15, 1917 (N).

MELASTOMACEAE

RHEXIA VIRGINICA L. Wet, peaty depressions and borders of small ponds. NON: 2639 (N,P,M); NAS: *Northrop*, "July-Aug." 1901 (Y), *Northrop*, Sept. 1901 (Y), 3548 (P); CUT: 2522 (P).

ONAGRACEAE

LUDVIGIA PALUSTRIS (L.) Ell. Floating or growing on moist mud; small pond holes. NON: 2240 (C), 2571 (P,M), 3164 (N,P); NAU: 2468 (N,P); PAS: 3784 (P); NAS: *Northrop* (o), 3526 (N,P); CUT: 3447 (P); PEN: 457 (P,W).

EPILOBIUM DENSUM Raf. Reported by Mrs. Northrop from Nashawena as *E. lineare*; no specimen seen.

E. PALUSTRE L., var. *MONTICOLA* Haussk. Collected in an open sphagnum bog at the west end of Cuttyhunk on July 28, 1927. CUT: 2307 (N).

E. COLORATUM Muhl. Seen only on the shingle at French Watering Place; perhaps more general. NAU: 2718 (N).

E. GLANDULOSUM Lehm., var. *ADENOCAULON* (Haussk.) Fernald.
E. adenocaulon Haussk. See *RHODORA*, xx. 34 (1918). Reported from Nashawena by Mrs. Northrop; no specimen seen.

OENOTHERA MURICATA L. Dry sandy soil, east end of Pasque; probably more common. PAS: 3761 (P).

O. BIENNIS L. Dry sterile ground, occasionally in grassland. NAS: *Northrop* (o); PEN: 1446 (N,P,W).

O. grandiflora Ait. On Penikese, where probably introduced. PEN: 1447 (W).

HALORAGIDACEAE

MYRIOPHYLLUM SCABRATUM Michx. Rather frequent; small ponds and wet pond holes. NON: 2241 (G,N,P), 3363 (P); UNC: 2996 (N,P,M,C), 3647 (P); NAU: 801 (N); NAS: *C. E. Faxon*, Sept. 1875 (G), *Northrop* (o); PEN: 453 (N,P,W), 3398 (P).

M. HUMILE (Raf.) Morong. Abundant and variable; forma *capillaceum* and forma *natans* have both been met with but appear to be nothing more than mere ecological variations. NON: 2705 (N,P, M,C); NAU: 2503 (N,P,M); PAS: 845 (N,P); NAS: *Northrop* (o), 3520 (N,P); CUT: 3448 (P).

M. TENELLUM Bigel. Muddy borders and bottoms of several small ponds. NAU: 2401 (N), 2753 (N,P); PAS: 1068 (W); NAS: *Northrop* (o); CUT: *Hervey*, no date (N).

PROSERPINACA PALUSTRIS L. Ponds and pond borders, often submerged. NON: 2570 (P), 2643 (N,P), 3382 (P,M); UNC: 3026 (N); PAS: 554 (P,W); NAS: *Northrop*, July, 1901 (Y); CUT: 803 (W), *Sanford*, Aug. 15, 1917 (N).

UMBELLIFERAE

SANICULA CANADENSIS L. Dry sandy woods; not common. NAU: 2459 (P,M), 3927 (N,P,C).

HYDROCOTYLE UMBELLATA L. Shallow water of ponds and muddy or grassy pond margins. UNC: 3001 (N); NAU: *Williams et al.*, July 10, 1911 (N), 1805 (N), 2502 (N,P), 2729 (M), 2947 (N,P,C); NAS: *Northrop*, "July-Aug." 1901 (Y), *Pennell* 2923 (W); CUT: *Sanford*, Aug. 15, 1917 (N).

H. CANBYI Coulter & Rose. NAU: 1069 (G), 2948 (N,P).

In the Gray Herbarium there is a specimen of *H. Canbyi* labelled *H. umbellata*, var. *ambigua* which was collected at "Woods Holl, Sept. 10, 1876, on shores of Nobska Pond." This sheet is further labelled "Herb. W. G. Farlow," and, though no collector's name appears, may have been collected by Farlow himself. It constituted the only known record for this plant north of southern New Jersey until 1925 when, on July 14, Dr. H. K. Svenson and the writer found it growing around the shores of French Watering Place on Naushon.

On Aug. 31, 1927, the writer again visited this locality and found the plant, this time along another portion of the shore of the same pond. *H. Canbyi* is thus definitely established as a member of the flora of New England.

H. VERTICILLATA Thunb. NON: 2895 (G,N,P); UNC: 2981 (G, N,P,W), 3000 (P).

The reported occurrence of this species in Massachusetts has apparently been based upon a sheet collected by Thomas Morong at Woods Hole on Aug. 10, 1877. This sheet, which is in the Gray Herbarium, bears the determination "*H. interrupta* Muhl." and is perfectly typical *H. verticillata* as understood today. Also, there is a sheet of this species in the herbarium of the Boston Society of Natural History collected at New Bedford and further labelled merely "Oakes Coll." Southwest of Massachusetts the plant has been known only from Block Island before "jumping" to southern New Jersey (Cape May County).

On August 30, 1927, while exploring the west end of Nonamesset, the writer came upon a small pond in the open hills which was filled with a species of *Hydrocotyle*. This, upon examination, proved to be *H. verticillata*. Three days later, September 2, this same species was found growing in profusion in two small grassy ponds along the north shore of Uncatena toward the east end. Thus, a second member of this genus is restored to our list for this region after a lapse of half a century.

PTILIMNIUM CAPILLACEUM (Michx.) Raf. Borders of brackish ponds and salt marshes. NON: 2595 (N), 2664 (P); UNC: 3019 (N,P); NAU: 2370 (P,M,C), 2715 (N,P); NAS: *Northrop* (o), 3501 (P).

CICUTA MACULATA L. On Mrs. Northrop's list for Nashawena; no specimen seen.

SIUM SUAVE Walt. *S. cicutaceum* Schrank. See Blake, RHODORA, xvii. 131 (1915). Swampy hollows in woods and borders of ponds. UNC: 2988 (P); NAU: 2386 (N,P); NAS: *Northrop* (o), 2350 (N,P); CUT: 3443 (P).

LIGUSTICUM SCOTHICUM L. Sandy and gravelly beaches. NON: 3210 (N); UNC: 2979 (N,P); PAS: 557 (P,W); PEN: 1449 (P,W).

COELOPLEURUM LUCIDUM (L.) Fernald. *C. actaeifolium* (Michx.) C. & R. See Fernald, RHODORA, xxi. 144 (1919). Sand and cobble beaches; not very common. CUT: 3435 (N,P); PEN: *Jordan* (o).

Pastinaca sativa L. Reported by Mrs. Northrop from Nashawena; no specimen seen.

HERACLEUM LANATUM Michx. Seen growing only on gravelly bank along East Gutter. NON: 3310 (N); NAS: *Northrop* (o).

Daucus Carota L. Dry grassland; apparently not common. NAS: *Northrop* (o); CUT: 2326 (N,P); PEN: 1448 (P,W).

CORNACEAE

CORNUS FLORIDA L. Fairly abundant in boggy woods in hollows along south shore of Nonamesset; perhaps elsewhere. Seen in full "flower" on May 28, 1928. NON: 3302 (N,P,M,C); NAS: *Northrop* (o).

NYSSA SYLVATICA Marsh. A common tree both in the wet wooded hollows and in the moist portions of the beech-oak forests. NON: 2636 (P), 2667 (W,M), 2886 (N,P); NAU: *Simons*, July 23, 1901 (W), 2932 (N); NAS: *Northrop* (o), *Williams*, July 10, 1911 (N), 3517 (P).

ERICACEAE

CLETHRA ALNIFOLIA L. Thickets and pond borders; abundant. NON: 2293 (P,C), 2627 (N,P), 2882 (N,M); UNC: 3649 (N,P); NAS: *Northrop* (o), 1771 (P); CUT: 2309 (P).

CHIMAPHILA MACULATA (L.) Pursh. Reported by Mrs. Northrop from Nashawena; no specimen seen.

PYROLA ROTUNDIFOLIA L., var. *AMERICANA* (Sweet) Fernald. *P. americana* Sweet. See *RHODORA*, xxii. 122 (1920). Mrs. Northrop, who reports this from Nashawena, says, "Few plants in one station." No specimen seen.

MONOTROPA UNIFLORA L. Dry sandy beech and oak woods. NAU: *Williams*, July 10, 1911 (N), 806 (P,W); NAS: *Northrop* (o), 3537 (P).

M. HYPOPHYTIS L. Seen only in sandy woods at east end of Nashawena; perhaps more common. NAS: 3538 (N).

M. HYPOPHYTIS L., var. *RUBRA* (Torr.) Farwell. See Amer. Midl. Nat., x. 39 (1926). The crimson variety was collected in dense beech woods near Witches' Glen on Naushon; seen nowhere else. NAU: 3687 (N).

RHODODENDRON VISCOSUM (L.) Torr. Thickets and pond borders. NON: 2629 (N); NAS: *Northrop* (o), 1769 (N,P,M); CUT: 2317 (N).

R. VISCOSUM (L.) Torr., var. *GLAUCUM* (Michx.) Gray. Known only from a single specimen collected by Williams on Nashawena; probably more abundant. NAS: *Williams*, July 10, 1911 (N).

KALMIA ANGUSTIFOLIA L. Apparently rare; reported by Mrs. Northrop from Nashawena, but no specimen seen.

LEUCOTHOE RACEMOSA (L.) Gray. Occasional around sandy margins of ponds. NAU: 2482 (P,M), 2938 (N,P).

LYONIA LIGUSTRINA (L.) DC. Dense thickets and wet borders of ponds. NON: 2628 (N,P); UNC: 3650 (N,P,M); NAS: *Northrop* (o), 1768 (N,P).

CHAMAEDAPHNE CALYCULATA (L.) Moench. Seen growing only around borders of dune ponds on Nashawena. NAS: *Northrop*, Aug. 1901 (Y), 1770 (N,P,W).

EPIGAEA REPENS L. Reported by Mrs. Northrop from Nashawena with the remark, "On bank near Mirror Lake." No specimens seen.

GAULTHERIA PROCUMBENS L. Apparently not common. Reported from Nashawena and found there growing sparingly in boggy woods at east end. NAS: *Northrop* (o), 3545 (N).

GAYLUSSACIA DUMOSA (Andr.) T. & G., var. *BIGELOVIANA* Fernald. See *RHODORA*, xiii. 95 (1911). Also *RHODORA*, xxiii. 248 (1921). Decidedly not common; so far known only from Nashawena. NAS: *Northrop*, July, 1901 (Y), *Northrop*, "July-Aug." 1901 (Y), *Taylor*, July 6, 1920 (P).

G. FRONDOSA (L.) T. & G. Occasional in thickets and about ponds. NON: 2236 (N,P); NAS: *Northrop*, Aug. 1901 (Y).

G. BACCATA (Wang.) C. Koch. This is the commonest Huckleberry on the islands; it is everywhere in the open areas, often forming an impenetrable growth in the hollows or under the lee of protecting hills. NON: 2576 (N,P), 2651 (P); NAU: 2504 (P,C), 2941 (N,P,M), 3689 (P); NAS: *Northrop* (o), 3559 (P).

VACCINIUM CORYMBOSUM L. Abundant around ponds, in moist depressions and in boggy woods. NON: 2637 (P); NAS: *Northrop* (o), 3516 (P).

V. ATROCOCCUM (Gray) Heller. Same situations as last but apparently less common; flowers and fruit earlier. NAS: 1776 (P).

V. MACROCARPON Ait. Open bogs and peaty hollows. NAS: *Northrop* (o); CUT: 2313 (P), 2519 (N,P,M).

PLUMBAGINACEAE

LIMONIUM NASHII Small, var. *TRICHOGONUM* Blake. *L. carolinianum* of the Manual. See *RHODORA*, xxv. 58 (1923). The following numbers, out of a large series being held for study, may be cited. UNC: 3122 (P); NAU: 2456 (P).

In his recent revision of the Sea Lavenders Blake characterizes the New England material as having the calyx densely pubescent, at least at the base. Nevertheless, specimens collected from the Elizabeth Islands show the calyx nearly smooth or with a few scattered hairs and, according to Blake's treatment, would come closer to *L. carolinianum*, which name he restricts to the southern material with glabrous calyx. It is obvious that the last word has not yet been said concerning this genus as it is represented in the eastern United States.

PRIMULACEAE

SAMOLUS FLORIBUNDUS HBK. Sandy and peaty pond margins; not common. NON: 2873 (N); NAU: 1078 (W), 2722 (N).

LYSIMACHIA QUADRIFOLIA L. Sandy woods; infrequent. NAU: 3327 (P); NAS: *Northrop* (o).

L. TERRESTRIS (L.) BSP. Open bogs and pond borders. NAS: *Northrop* (o), 2344 (N); CUT: 2316 (P).

TRIENTALIS BOREALIS Raf. *T. americana* (Pers.) Pursh. See Blanchard, RHODORA, xi. 236 (1909). Boggy woods. NON: 3297 (N,P); NAU: 3328 (N,P); NAS: *Northrop* (o).

Anagallis arvensis L. Cobble beaches and sandy waste places. UNC: 2957 (N); NAS: *Northrop* (o); CUT: 3434 (P); PEN: 1450 (N,P,W).

OLEACEAE

FRAXINUS AMERICANA L. Certainly not common; seen only on edge of swampy hollow along north shore of Nashawena. NAS: *Northrop* (o), 3480 (N).

F. PENNSYLVANICA Marsh. Reported by Mrs. Northrop from Nashawena; no specimen seen.

Ligustrum vulgare L. Escaped from cultivation on Penikese. PEN: 1451 (W).

GENTIANACEAE

BARTONIA VIRGINICA (L.) BSP. Open bogs and peaty hollows or pond borders. PAS: 3782 (P); NAS: *Northrop*, Aug. 1901 (Y), 3508 (N); CUT: 2515 (N,P).

B. PANICULATA (Michx.) Robinson. A single specimen of this species was collected in the woods on Naushon by Professor Fernald and the writer on Aug. 10, 1927, but the material was subsequently mislaid. The plant is surely uncommon on the Elizabeth Islands.

MENYANTHES TRIFOLIATA L., var. MINOR Michx. See RHODORA, xxxi. 198 (1929). Seen growing only in a small boggy area bordering Sheep Pond. NAS: *Northrop* (o); CUT: *Hervey*, no date (N), 810 (P,W).

NYMPHOIDES LACUNOSUM (Vent.) Fernald. Collected in a small pond on Nonamesset. NON: 2707 (P).

APOCYNACEAE

APOCYNUM ANDROSAEMIFOLIUM L. Exposed sandy bank bordering beach on Uncatena; possibly more general. UNC: 3639 (N,P).

ASCLEPIADACEAE

ASCLEPIAS TUBEROSA L. Sandy hillsides and clearings; rare and local. NAU: *Simons*, July 16, 1901 (W), 2602 (N); PAS: 589 (W).

A. INCARNATA L., var. PULCHRA (Ehrh.) Pers. The commonest Milkweed on the islands. Swamps and wet pond margins everywhere. NON: 2674 (N,P); UNC: 3059 (P); NAU: 2736 (N); NAS: *Northrop* (o), 3478 (P); PEN: *Jordan* (o).

A. SYRIACA L. Occasional in dry sandy ground. NAS: *Northrop* (o); PEN: 1452 (W).

A. PHYTOLACCOIDES Pursh. Reported by Mrs. Northrop as *A. exaltata* with the comment "Not uncommon." No specimen seen.

A. VERTICILLATA L. Known only from Mrs. Northrop's collection from Nashawena. NAS: *Northrop*, Aug. 1901 (Y).

CONVOLVULACEAE

CONVOLVULUS SEPIUM L. Occasional in thickets and overgrown depressions. NON: 2890 (P); NAS: *Northrop* (o).

C. SEPIUM L., var. *PUBESCENS* (Gray) Fernald. On sea beaches; apparently not abundant. PEN: 1454 (N,P,W).

C. arvensis L. Cobble beach of isthmus on Penikese. PEN: 1453 (W).

CUSCUTA GRONOVII Willd. Swamps, boggy clearings, wet thickets, etc., NAU: *Pennell* 3127 (W), 2495 (P), 2605 (N,P,M), 2914 (P,C), 2933 (P), 3139 (N,P,M), 3890 (P,C); NAS: *Northrop* (o), *Williams*, July 10, 1911 (N), 2353 (P).

This is apparently the only species of Dodder on the islands. A large and variable series has been collected and has been studied in the light of T. G. Yuncker's recent monograph of the genus (1921), but it has not been found possible to recognize more than this single polymorphic species.

VERBENACEAE

VERBENA HASTATA L. Collected on gravelly upper beach on Uncatena and in swampy clearing on Naushon. UNC: 2980 (N); NAU: 2465 (P).

LABIATAE

TEUCRIUM CANADENSE L., var. *LITTORALE* (Bickn.) Fernald. Abundant near beaches, borders of brackish areas, wet thickets, etc. NON: *Cushman*, July 27, 1906 (B), 2586 (N); UNC: 2960 (P), 3047 (N,P,C); NAU: 1797 (P), 2500 (P,M); NAS: *Northrop* (o); PEN: 1460 (N,P,W).

TRICHOSTEMA DICHOTOMUM L. Frequent on open downs and sandy knolls. NON: 2623 (N); UNC: 2973 (P), 3120 (N); NAS: *Northrop* (o).

SCUTELLARIA LATERIFLORA L. Listed as "common" on Nashawena by Mrs. Northrop; no specimen seen.

S. EPILOBIIFOLIA Hamilton. *S. galericulata* of the Manual. See Fernald, RHODORA, xxiii. 85 (1921). Abundant in wet hollows and around ponds. NON: *Cushman*, July 27, 1906 (B), 2298 (N,P,C); UNC: 3045 (P); NAU: *Cushman & Morse*, Aug. 25, 1906 (B), *Pennell* 3116 (P), 2373 (P,M), 2607 (N); NAS: *Northrop* (o), 3476 (P); CUT: *Sanford*, Aug. 15, 1917 (N), 815 (W,P); PEN: 1459 (N,P,W), 3406 (P).

Marrubium vulgare L. Sandy soil, waste places. NAU: *Moore* 1904 (N), 814 (W); NAS: *Northrop* (o), *Williams*, July 10, 1911 (N), *Pennell* 2911 (W).

Nepeta Cataria L. Dry, sterile soil. UNC: 3054 (N); NAS: *Northrop* (o); PEN: 1458 (N,P,W).

Prunella vulgaris L. Apparently not common; dry ground. NAS: *Northrop* (o), 3484 (P).

P. VULGARIS L., var. *LANCEOLATA* (Barton) Fernald. RHODORA, xv. 179 (1913). The indigenous variety was met with on dry, sandy slopes near center of Uncatena. UNC: 3032 (P).

Leonurus Cardiaca L. Fairly abundant on Penikese; not collected elsewhere. NAS: *Northrop* (o); PEN: 1455 (W).

PYCANTHEMUM FLEXUOSUM (Walt.) BSP. Known only from specimen in Woods Hole herbarium collected on Naushon. NAU: *Simons*, July 23, 1901 (W).

P. MUTICUM (Michx.) Pers. Reported and collected by Mrs. Northrop from Nashawena. NAS: *Northrop*, Aug. 1901 (Y).

LYCOPUS VIRGINICUS L. Rare and local on the islands; seen growing only on the sandy beach bordering West End Pond. NAU: *Cushman & Morse*, Aug. 25, 1906 (B), 2926 (N).

L. UNIFLORUS Michx. The most abundant species of the genus here; pond margins, wet hollows, etc. NON: 2565 (N,P,W), 2663 (P); UNC: 2969 (N); NAU: *Williams*, July 10, 1911 (N), 2487 (P); NAS: 2346 (N); CUT: 2525 (N); PEN: 1457 (W).

L. AMERICANUS Muhl. Frequent; moist situations. UNC: 2970 (N); NAS: *Northrop* (o), 3749 (N,P); CUT: 2524 (N,P), PEN: 1456 (N,P,M,W,C).

Mentha spicata L. Occasional in wet hollows. NAS: *Northrop* (o), 3491 (P,M).

M. Cardiaca Gerarde. Reported by Mrs. Northrop from Nashawena; no specimen seen.

M. crispa L. Collected in a swampy hollow at the east end of Cuttyhunk. CUT: 2284 (N).

SOLANACEAE

Solanum Dulcamara L. Seen only trailing over a dense thicket bordering pond on Uncatena. UNC: 3042 (N).

S. nigrum L. Very abundant as a littoral plant, often fringing the sandy or cobble beaches with a solid growth. NON: *Cushman*, July 27, 1906 (B), 2872 (N,P); NAS: *Northrop* (o); CUT: 3446 (P); PEN: 1462 (N,P,W).

S. rostratum Dunal. Sandy waste areas; infrequent. NAU: *Taylor*, July 24, 1921 (P); PEN: *Hollick* (o).

S. triflorum Nutt. This western species was found growing on beach near Tarpaulin Cove; possibly introduced in the days when the Cove served as a refuge for sailing vessels. NAU: 1806 (N).

Datura Stramonium L. Sandy and cobble beaches; of casual occurrence. UNC: 2958 (N); NAU: *Cushman & Morse*, Aug. 25, 1906 (B); PEN: 1461 (W).

D. Tatula L. On Mrs. Northrop's Nashawena list; may refer to the preceding; no specimen seen.

SCROPHULARIACEAE

Verbascum Thapsus L. Open, sandy ground and waste places. NAU: 2720 (N,P); NAS: *Northrop* (o); PEN: 1465 (N,P,W).

Linaria vulgaris Hill. Decidedly not common on the islands; seen only on Penikese. PEN: 857 (W).

L. CANADENSIS (L.) Dumont. Grassy slopes and open sandy stretches. NON: 3373 (P); NAS: *Northrop* (o), 3483 (N); CUT: 2331 (N); PEN: 1464 (P,W), 3403 (P).

LIMOSELLA SUBULATA Ives. *L. aquatica*, var. *tenuifolia* of Manual. See RHODORA, xx. 160 (1918). Sandy and muddy margins of ponds on Pasque and Nashawena. PAS: 3745 (N,P); NAS: *Northrop*, "July-Aug." (Y), 2356 (N).

ILYSANTHES DUBIA (L.) Barnhart. Reported by Mrs. Northrop from Nashawena as *I. gratioloides*; no specimen seen.

I. INAEQUALIS (Walt.) Pennell. *I. anagallidea* (Michx.) Robins. See Pennell, Torreya, xix. 149 (1919). Sandy and peaty pond borders. NON: 2702 (N); NAS: *Williams*, July 10, 1911 (N); PEN: 454 (N, P,W).

GRATIOLA AUREA Muhl. Peaty margins of small ponds. NON: 2641 (P), 3194 (N,P), 3383 (N,P); NAU: *Taylor* 2347 (P), 1079 (P,W).

Digitalis purpurea L. A few plants persistent around leper cottages on Penikese. PEN: 1463 (W).

VERONICA SERPYLLIFOLIA L. Reported from Nashawena by Mrs. Northrop; no specimen seen.

V. PEREGRINA L. Occasional in sandy soil. The Naushon material is very sparingly pubescent, approaching var. *xalapensis* (HBK.) Pennell. NAU: 3330 (P); NAS: *Northrop* (o); CUT: *Hervey*, no date (N).

V. arvensis L. Seen only in a sandy field near center of Nonamesset. NON: 3306 (N,P).

AGALINIS PURPUREA (L.) Pennell. *Gerardia purpurea* L. See Bull. Torrey Bot. Club, xl. 126 (1913). Listed by Mrs. Northrop for Nashawena; no specimen seen.

A. MARITIMA Raf. *Gerardia maritima* Raf. Seen only on border of brackish area on Uncatena; probably more general. UNC: 3005 (N,P).

MELAMPYRUM LINEARE Lam. Mrs. Northrop reports this for Nashawena; no specimen seen.

PEDICULARIS CANADENSIS L. Dry, sandy beech woods near Hadley Harbor. NAU: 3313 (N,P).

LENTIBULARIACEAE

UTRICULARIA GEMINISCAPA Benj. *U. clandestina* Nutt. In a small pond on Nashawena; probably commoner. NAS: 3504 (P).

U. GIBBA L. Known only from sheet in Woods Hole herbarium collected on Naushon. NAU: *Simons*, July 23, 1901 (W).

U. BIFLORA Lam. Reported from Nashawena by Mrs. Northrop; no specimen seen.

U. CORNUTA Michx. Reported and collected by Mrs. Northrop. NAS: *Northrop*, Aug. 1901 (Y).

OROBANCHACEAE

EPIFAGUS VIRGINIANA (L.) Bart. Fairly abundant in beech woods on Naushon; should be found on other islands as well. NAU: *Williams*, July 10, 1911 (N), 2937 (P), 3138 (N).

BIGNONIACEAE

Catalpa bignonioides Walt. Well naturalized in certain areas on Nashawena. NAS: 3546 (P).

PLANTAGINACEAE

PLANTAGO MAJOR L. Cobbly beaches, grassy slopes, etc. NON: 2697 (P), 2900 (N); NAS: *Northrop* (o); PEN: 1467 (N,P,W), 3407 (N,P).

P. major L., var. *INTERMEDIA* (Gilibert) Dene. Material so labelled was collected by A. H. Moore on Penikese in 1904. Here also may be referred tentatively specimens collected by Hollick on Naushon and by Mrs. Northrop (labelled *P. halophila* Bickn.) on Nashawena. This is done with the realization that the maritime phase of *P. major* is in need of very careful study in order that its status may be satisfactorily determined. NAU: *Hollick*, Aug. 11, 1898 (Y); NAS: *Northrop*, Aug. 1901 (Y); PEN: Moore 1916 (G, N).

P. JUNCOIDES Lam., var. *DECIPiens* (Barneoud) Fernald. *P. maritima* of American authors in part, not L. See Fernald, RHODORA, xxvii. 100 (1925). Collected on exposed gravelly bank along north shore of Naushon west of Kettle Cove. NAU: 3876 (N,P).

P. OLIGANTHOS R. & S. *P. maritima* of American authors in part. See Fernald, I. c. 93–104. Salt marshes and brackish muds. PAS: 3740 (N,P,M,C); CUT: 3568 (P).

P. lanceolata L. Grassland; not common. NAS: *Northrop* (o); PEN: 1466 (P,W), 3394 (N,P).

P. lanceolata L., var. *sphaerostachya* Mert. & Koch. See Fernald, RHODORA, xxiv. 203 (1922). Sandy and cobbly beach on Uncatena. UNC: 3055 (N,P).

P. lanceolata L., var. *sphaerostachya* Mert. & Koch., forma *eriophora* (Hoffmans. & Link) Beck von Man. See Fernald, I. c. Sandy soil at east end of Cuttyhunk. CUT: 2269 (N).

P. aristata Michx. Occasional in sandy fields. UNC: 3652 (N,P); NAU: *Simons*, July 23, 1901 (W); CUT: *Northrop* (o).

P. VIRGINICA L. Mrs. Northrop reports this from Nashawena, saying, "Common on downs, about 2 in. high." No specimen seen.

RUBIACEAE

GALIUM APARINE L. Listed by Mrs. Northrop for Nashawena; no specimen seen.

G. PILOSUM Ait. Dry sandy woods and clearings. NON: 2562 (P); NAU: *Pennell* 3150 (W), 2930 (N), 3686 (P); NAS: *Northrop* (o).

G. CIRCAEZANS Michx. Collected by Pennell on Naushon. NAU: *Pennell* 3110 (W).

G. TRIFIDUM L. Borders of brackish areas; not common. NAU: 2513 (N), 3684 (P,M); NAS: *Northrop* (o), 3541 (P).

Erroneously reported from Penikese; see RHODORA, xxvi. 228 (1924). The Penikese material proves to be *G. Claytoni*.

G. CLAYTONI Michx. Wet thickets, pond margins and grassy slopes; very abundant. NON: 2572 (C), 2646 (N), 2666 (P), 2880 (P), 2906 (P); UNC: 3027 (N); NAU: 2374 (P), 2716 (N,P,M); PAS: 3748 (P); CUT: 2516 (N,P); PEN: 1468 (N,P,W).

G. TRIFLORUM Michx. Collected only at edge of beach near east end of Naushon; possibly more general. NAU: 2457 (N,P).

MITCHELLA REPENS L. Reported by Mrs. Northrop from Nashawena; no specimen seen.

CEPHALANTHUS OCCIDENTALIS L. Not common; collected in boggy pasture on Nashawena. NAS: *Northrop* (o), 3564 (P).

CAPRIFOLIACEAE

Lonicera japonica Thunb. Occasional as an escape. UNC: 3037 (N); PEN: 1469 (N,P,W).

TRIOSTEUM PERFOLIATUM L. Seen only on dry open hillside on Pasque. PAS: 567 (N,P).

VIBURNUM ACERIFOLIUM L. Reported by Mrs. Northrop for Nashawena; no specimen seen.

V. PUBESCENS (Ait.) Pursh. *V. venosum* Britton. See Blake, RHODORA, xx. 11 (1918). This is the only *Viburnum* seen growing upon the islands. It is of frequent occurrence in moist hollows and in thickets bordering ponds. UNC: 3010 (N,P); NAU: 2458 (P,M). 3320 (P,C); NAS: 3489 (N), 3518 (P).

VIBURNUM DENTATUM L. is reported by Mrs. Northrop from Nashawena. It is possible that this refers to the preceding, but in the absence of specimens this record is permitted to stand.

SAMBUCUS CANADENSIS L. Occasional; thickets and moist depressions. NAS: *Northrop* (o), 3488 (N); PEN: 1470 (N,P,W).

CUCURBITACEAE

Cucurbita maxima Duchesne. Sandy soil near cultivated area on Penikese. PEN: 1471 (W).

CAMPANULACEAE

SPECULARIA PERFOLIATA (L.) A. DC. Reported from Nashawena by Mrs. Northrop; no specimen seen.

LOBELIACEAE

LOBELIA CARDINALIS L. Found only in a swampy clearing at the east end of Naushon. NAU: 2466 (P,M).

COMPOSITAE

EUPATORIUM VERTICILLATUM Lam. Mrs. Northrop reports *E. maculatum* from Nashawena, but it is probable that this refers to the plant treated by Wiegand as *E. verticillatum* (See RHODORA, xxii. 57 (1920)),

a coastal plain species the general absence of which from the Elizabeths is indeed surprising. NAS: *Northrop* (o).

E. HYSSOPIFOLIUM L. Rather frequent on open grassy and sandy slopes. NON: 2590 (P); UNC: 2953 (N); NAU: *Oakes?* (Herb. Lowell) (B); PAS: 1790 (P,W).

E. VERBENAEOFOLIUM Michx. Reported by Mrs. Northrop from Nashawena; no specimen seen.

E. PERFORIATUM L. Wet hollows; uncommon. UNC: 2966 (N); NAS: *Northrop* (o).

CHRYSOXPIS FALCATA (Pursh) Ell. Open downs and sandy clearings. NON: 2583 (P); NAU: 2596 (N,P); PAS: 3788 (N); NAS: *Northrop* (o).

SOLIDAGO BICOLOR L. Dry, sandy woods; not abundant. NAU: 3161 (N), 3905 (P).

[*S. ULIGINOSA* Nutt. is reported from Nashawena by Mrs. Northrop; this doubtless refers to some other species, but since, in the absence of material, it is impossible to say which one, this record is discredited.]

S. SEMPERVIRENS L. Sandy and cobbley beaches. NON: 3211 (P); UNC: 3110 (N); PAS: 3744 (P); NAS: *Northrop* (o); CUT: 2270 (N); PEN: 1492 (N,P,W).

S. JUNCEA Ait. Known only from bare gravelly slopes on Penikese. PEN: 1489 (P,W).

S. SUAVEOLENS Schoepf. *S. odora* Ait. See Standley, RHODORA, xxi. 69 (1919). Collected only in dryish peaty border of bog on Cuttyhunk; perhaps more abundant. NAS: *Northrop* (o); CUT: 2520 (N,P, M).

S. ELLIOTTII T. & G. Dry thickets on Uncatena. UNC: 3105 (P), 3111 (N,P,M).

S. RUGOSA Mill. Dry, boulder-covered slopes on Penikese. PEN: 1491 (N,P,W).

S. RUGOSA Mill., var. *ASPERA* (Ait.) Fernald. *S. aspera* Ait. See RHODORA, xvii. 7 (1915). Open grassy downs and pond borders. NON: 3186 (N,P,M); UNC: 3093 (P); CUT: 2521 (N,P).

S. NEMORALIS Ait. Dry hillsides. UNC: 2971 (N,P); PAS: 3797 (P); NAS: *Northrop* (o); PEN: 1490 (W).

S. CANADENSIS L. Collected only on dry southwest slopes of Penikese. PEN: 1488 (W).

S. ALTISSIMA L. Collected only in thickets on dry hillsides of Uncatena. UNC: 3102 (N).

S. TENUIFOLIA Pursh. Everywhere on open downs and borders of *Gaylussacia* thickets. NON: 2561 (P); 3168 (N,P); UNC: 3084 (N, P,M); NAU: *Cushman*, Aug. 25, 1906 (B), 2505 (M,C), 2719 (N,P), 2929 (N,P); NAS: *Northrop* (o); CUT: *Sanford*, Aug. 15, 1917 (N); PEN: 455 (N,P,W,M).

S. GRAMINIFOLIA (L.) Salisb. Same situations as the preceding; somewhat less abundant. NON: 3179 (N,P,M,C); UNC: 2952 (N, P); PAS: 3750 (P).

S. MINOR (Michx.) Fernald. This southern species, ranging from Mississippi and Florida to Virginia and reported by Bicknell from Nantucket, was collected by Professor Fernald and the writer on open grassy hillsides near the central part of Naushon. NAU: 2506 (N,P).

ASTER DIVARICATUS L. Occasional in dry open woods. NON: 3193 (N); NAU: 3160 (N,P).

A. PATENS Ait. Grassland and sandy thickets. NON: 3190 (P); NAU: 3142 (N); NAS: *Northrop* (o).

A. UNDULATUS L. Dry woods; common. NON: 3183 (N,P), 3187 (P,C); UNC: 3080 (N,P,M); NAU: 3158 (N,P,M); PEN: 1474 (W).

A. ERICOIDES L. Reported by Hollick from Pasque; no specimen seen, nor has this Aster, so abundant on the adjacent mainland, been found growing on the Elizabeth Islands, despite diligent search for it.

A. MULTIFLORUS Ait. Fairly abundant on grassy slopes. NON: 3184 (N), 3192 (N,P); PAS: 3751 (P,C); CUT: 3577 (P,M); PEN: 1098 (P, W).

A. DUMOSUS L. With the last. NON: 3178 (P), 3189 (N,P,W), 3195 (P); UNC: 2972 (N,P), 3091 (P); NAU: 3144 (P), 3159 (P); PAS: 3764 (N,P).

A. DUMOSUS L., var. *CORIDIFOLIUS* (Michx.) T. & G. Clearing in dry beech woods near Mary's Lake. NAU: 3145 (N,P).

A. DUMOSUS × ? This plant, probably representing *A. dumosus* × *vimeinus*, was collected in sandy woods on Naushon. NAU: 3143 (N).

A. VIMINEUS Lam. Abundant in sandy woods and on open downs. NON: 3196 (P,M,C), 3200 (N,P,W,M); UNC: 3100 (N,P); NAU: 3134 (N,P,C), 3157 (P); PEN: 1475 (P).

A. LATERIFLORUS (L.) Britton. Apparently not common; dry, shady beech woods on Naushon. NAU: 3146 (N).

A. NOVI-BELGII L. Abundant in dry, open ground, especially along borders of thickets; extremely variable. NON: 3181 (W,C), 3182 (M), 3192 (N,P,C), 3201 (N,P); UNC: 3090 (N,P), 3101 (P); PAS: 3771 (P); CUT: 2518 (N).

A. UMBELLATUS Mill. Reported by Mrs. Northrop from Nashawena; no specimen seen.

A. LINARIIFOLIUS L. Dry, open hillsides; not frequent. UNC: 3092 (N); PAS: 3790 (P); NAS: *Northrop* (o).

ERIGERON RAMOSUS (Walt.) BSP. Open sandy slopes. UNC: 3643 (P); NAS: *Northrop* (o).

E. CANADENSIS L. Disturbed, sandy soil; rare. PEN: 1485 (W).

E. PUSILLUS Nutt. See Robinson, RHODORA, xv. 205 (1913). Open, sandy slopes. NON: 2902 (N,P); PAS: 3768 (P); PEN: 1486 (P,W).

SERICOCARPUS ASTEROIDES (L.) BSP. Open downs. UNC: 3062 (N); PAS: 3789 (P); NAS: *Northrop* (o).

S. LINIFOLIUS (L.) BSP. Reported from Pasque by Hollick; no specimen seen.

PLUCHEA CAMPHORATA (L.) DC. Margins of brackish ponds and

borders of salt marshes. NON: 2289 (N), 2662 (P); UNC: 3036 (N); NAU: *Cushman & Morse*, Aug. 25, 1906 (B), 1799 (N,P,W).

ANTENNARIA PLANTAGINIFOLIA (L.) Richards. Grassy knolls and exposed hillsides. NON: 2670 (N), 3280 (N,P); UNC: 3640 (N,P); NAU: 3312 (P); NAS: *Northrop* (o).

A. NEGLECTA Greene. Same situations as last. NON: 3281 (P); NAS: 3506 (P), 3554 (N); CUT: 3458 (N,P).

ANAPHALIS MARGARITACEA (L.) B. & H. Grassland and open ground everywhere. NON: 2560 (P); UNC: 3035 (N); PAS: 3796 (P); NAS: *Northrop* (o); CUT: 3454 (N,P).

GNAPHALIUM OBTUSIFOLIUM L. *G. polyccephalum* Michx. Open, sandy and grassy slopes and clearings. UNC: 2954 (N), 3077 (P); NAU: 2730 (N); PAS: 3760 (P); NAS: *Northrop* (o); CUT: *Sanford*, Aug. 15, 1917 (N); PEN: 1482 (N,P,W,M,C).

G. ULGINOSUM L. Upper beaches and low sandy ground, occasionally bordering salt marshes. UNC: 3006 (N); NAU: *Cushman & Morse*, Aug. 25, 1906 (B), 2388 (N,P); NAS: *Northrop* (o); PEN: 1096 (N,P,W).

G. PURPUREUM L. Dry, sandy soil; rare and local. NAU: 834 (W); NAS: 3507 (N); CUT: *Hervey*, no date (N).

IVA ORARIA Bartlett. Reported by Jordan from Penikese; no specimen.

AMBROSIA ARTEMISIIFOLIA L. Not common except on Penikese where abundant on grassy slopes of peninsula. NAS: *Northrop* (o); PEN: 1473 (P,W).

XANTHIUM CANADENSE Mill. Reported by Mrs. Northrop from Nashawena; no specimen seen.

X. ECHINATUM Murr. Occasional on beaches. NON: 3177 (N), 3914 (P); PAS: 3759 (P); PEN: 458 (W).

Rudbeckia hirta L. Open grassland. UNC: 3641 (P); NAS: *Northrop* (o); CUT: 2329 (N); PEN: 1487 (P,W).

Helianthus annuus L. Sandy ground near area under cultivation on Penikese. PEN: 1483 (P,W).

COREOPSIS ROSEA Nutt. Apparently rare; seen only on sandy beach bordering West End Pond. NAU: 2916 (N,P,M,C).

C. lanceolata L. Persistent around leper cottages on Penikese, where planted. PEN: 1480 (P,W).

BIDENS CONNATA Muhl. Border of small pond in hills at north end of Penikese. PEN: 1476 (N,P,W,M,C).

B. CONNATA Muhl., var. PETIOLATA (Nutt.) Farwell. See RHODORA, x. 197 (1908). Wet borders of ponds; occasional. UNC: 3016 (P), 3115 (N,P); NAU: 3133 (N,P,W,M,C).

ACHILLEA MILLEFOLIUM L. Common everywhere on open grassy hillsides and in sandy fields and clearings. NON: 3166 (N); UNC: 2959 (N); NAS: *Northrop* (o), 3555 (P); CUT: 2260 (P,M), 2322 (N); PEN: 1472 (N,P,W).

Anthemis Cotula L. Disturbed sandy areas. UNC: 2955 (N); NAS: *Northrop* (o); CUT: 3580 (P); PEN: 858 (N,P,W).

Chrysanthemum Leucanthemum L., var. *pinnatifidum* Lecoq. & Lamotte. Certainly not common; occasional on open grasslands. NAS: *Northrop* (o); PEN: 1477 (N,P,W).

Tanacetum vulgare L. Sandy soil near habitations. PAS: 3767 (N); PEN: 1097 (W).

Artemisia Stelleriana Bess. Occasional on sandy and cobbly beaches. NON: Cushman, July 27, 1906 (B); CUT: 2275 (N,P,M).

ERECHITITES HIERACIFOLIA (L.) Raf. Sandy clearings; moist pond margins and depressions. NON: 2696 (N); NAU: 2928 (N); NAS: *Northrop* (o); PEN: 1481 (W).

E. HIERACIFOLIA (L.) Raf., var. *PREALTA* (Raf.) Fernald. See RHODORA, xix. 27 (1917). Moist hollow. NON: 2661 (N,P).

E. MEGALOCARPA Fernald. See RHODORA, xix. 24 (1917). Moist depressions; local. UNC: 2965 (P,C); 2984 (N,P,W,M).

Arctium minus Bernh. Reported by Mrs. Northrop for Nashawena; no specimen seen.

Cirsium lanceolatum (L.) Hill. Sandy and gravelly banks and hill-sides. NON: 2693 (N,P), Cushman, July 28, 1906 (B); NAU: 2717 (N,P); NAS: *Northrop* (o); CUT: 827 (P,W); PEN: 1479 (P,W).

C. HORRIDULUM Michx. *C. spinosissimum* of the Manual. See Robinson, RHODORA, xiii. 239 (1911). Occasional in open exposed situations. NON: 2299 (N); NAU: Miss Weir, June 22, 1890 (N); NAS: *Northrop* (o).

C. DISCOLOR (Muhl.) Spreng. Occasional in sandy clearings and borders of thickets. UNC: 3104 (N); PAS: 3752 (P).

C. PUMILUM (Nutt.) Spreng. Not common; met with only in grassland on Naushon. NAU: 828 (P,W); NAS: *Northrop* (o).

C. arvense (L.) Scop. Abundant on Penikese, where it forms a fringe on the upper beach to the south; local elsewhere. NAS: *Northrop* (o); PEN: 1478 (N,P,W).

Centaurea arenaria Bieb. Reported from Nashawena by Hollick as the first record for North America;¹ no specimen seen.

Cichorium Intybus L. Listed by Mrs. Northrop from Nashawena; no specimen seen.

KRIGIA VIRGINICA (L.) Willd. Sandy fields. NON: 3305 (N,P); NAU: 3879 (N,P).

K. BIFLORA (Walt.) Blake. *K. amplexicaulis* Nutt. See RHODORA, xvii. 135 (1915). On Mrs. Northrop's Nashawena list; no specimen seen.

Leontodon autumnalis L. Occasional in grassland or on dry banks. UNC: 3060 (N); NAU: 2392 (N); NAS: *Northrop* (o).

L. autumnalis L., var. *pratensis* Koch. In tall grass on slopes at west end of Penikese. PEN: 1484 (W).

Taraxacum officinale Weber. Not common; collected only near landing on Penikese. NAS: *Northrop* (o); PEN: 1496 (N,P,W).

Sonchus arvensis L. Occasional on beaches and sandy areas. NAS: *Northrop* (o); PEN: 1493 (N,P,W,M,C).

¹ Hollick, A. Cont. Geol. Dept. Columbia Univ. xi. no. 72. (1901).

S. oleraceus L. Seen mostly growing in the litter of upper sea beaches. CUT: 3432 (P); PEN: 1495 (N,P,W), 1755 (P).

S. asper (L.) Hill. With the last; less common. CUT: Pennell 2992 (W); PEN: 1494 (W).

LACTUCA CANADENSIS L. Reported by Mrs. Northrop from Nashawena; no specimen seen.

L. CANADENSIS L., var. *INTEGRIFOLIA* (Bigel.) Gray, forma *ANGUSTATA* Wiegand. See *RHODORA*, xxii. 10 (1920). Collected in dry, sandy soil at east end of Pasque. PAS: 3773 (P).

L. HIRSUTA Muhl. Seen growing only in sandy woods on Naushon; probably more common. NAU: 2464 (N); NAS: *Northrop* (o).

PRENANTHES SERPENTARIA Pursh. Mrs. Northrop reports this from Nashawena; no specimen seen.

P. TRIFOLIOLATA (Cass.) Fernald. Sandy woods; apparently rare. NAU: 3921 (P).

HIERACIUM PANICULATUM L. Dry, sandy woods; not common. NAU: 3920 (N,P).

H. MARIANUM Willd. Reported from Nashawena by Mrs. Northrop; no specimen seen.

H. SCABRUM Michx. On Mrs. Northrop's list for Nashawena; no specimen seen.

H. GRONOVII L. This is the commonest member of the genus on these islands; dry woods, sandy clearings, etc. NON: 2634 (P), 3185 (P); NAU: 2939 (N); PAS: 572 (W), 3775 (N); NAS: 3536 (P).

H. CANADENSE Michx. Apparently not abundant; collected only in dry, sandy soil at east end of Pasque. PAS: 3774 (N); NAS: *Northrop* (o).

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ERRATA

- Page 2, line 26, *for* (plate —), *read* (plate 192)
" 7, last line, *for* (t.), *read* (t. 194)
" 8, line 6 from bottom, *for* (Plate —), *read* (Plate 193)
" 8, " 4 " " , *for* (Plate —), *read* (Plate 194)
" 13, " 43, *for* *laurentiana*, *read* *laurentianus*
" 32, " 9, *for* Muhlenburg, *read* Muhlenberg
" 32, " 28, *for* Chesterton, *read* Chesterton
" 40, " 12, *for* *blanda*, *read* *pallida*
" 75, " 29, *for* Presl., *read* Presl.,
" 76, " 14, *for* *dilitata*, *read* *dilatata*
" 81, " 5, *for* *alpinis*, *read* *alpinus*
" 84, " 19, *for* *brecivaudatus*, *read* *brevicaudatus*
" 89, " 4 from bottom, *for* *Salviastrium*, *read* *Salviastrum*
" 104, " 16, *for* *achrostichoides*, *read* *acrostichoides*
" 105, " 3 from bottom, *for* *Hierochole*, *read* *Hierochloe*
" 151, " 35, *for* *virginica*, *read* *virginiana*
" 157, " 15, *for* Vahl., *read* Vahl.
" 162, " 1, *for* *Ceanthus*, *read* *Ceanothus*
" 163, " 4 from bottom, *for* 1845, *read* 1847
" 177, " 18, *for* E., *read* Eleocharis
" 199, " 30, *for* 1876, *read* 1875
" 202, " 6 of legend, *for* Boott, *read* Boott
" 203, " 6 " " , *for* *petiolarus*, *read* *petiolaris*
" 215, " 1 from bottom, *for* *cinnamomea*, *read* *cinnamomea*
" 232, " 41, end of line, delete P.
" 238, " 14, *for* Vahl., *read* Vahl.
" 238, " 27, *for* "C. ovata," *read* "E. ovata"
" 257, " 31, *for* POLYGANA, *read* POLYGAMA

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